



CLEAN LISTING OF CLAIMS

Claim 1 (Original): A combined light source and air purifier unit including: a body (11); a centrifugal fan (12) mounted by the body and having an axis which is upright, the centrifugal fan having a central intake (17) through which air containing contaminants can be drawn from below the unit from a target zone (80) directly below the intake and extending outwardly by a substantial distance; a light source (14) mounted by the body, the light source being located radially outside the intake (17) of the centrifugal fan (12) so as not to obstruct the flow of air being drawn in use into the intake; a filter (13) extending circumferentially so that air passing through the fan (12) and being propelled away by the fan passes through the filter so that contaminants are removed by the filter; and an air discharge (60) including a discharge path (61) for air being propelled by the fan, the discharge including flow deflecting means (62) provided by the body (11) to deflect air flowing outwardly from the fan in an upwards direction.

Claim 2 (Original): A unit as claimed in claim 1 wherein the centrifugal fan (12) is provided with an impeller (19) having rearward facing blades (20) which have their outer edges trailing behind their inner edges as the impeller rotates.

Claim 3 (Original): A unit as claimed in claim 2 wherein the unit is constructed and operated to run the impeller (19) at low speed, in the range 1200-1600 rpm, and preferably at about 1400 to 1500 rpm, said speed being substantially below the fan's design rated speed and capacity for effective air movement but developing sufficient pressure to enable effective draw from the target zone (80) while achieving acceptably quiet operation.

Claim 4 (Original): A unit as claimed in any one of the preceding claims wherein the filter (14) is generally cylindrical and surrounds the centrifugal fan (12) so that air impelled radially outwardly by the fan passes through the filter material and then into the discharge path (61) including the flow deflecting means (61) provided by the body.

Claim 5 (Original): A unit as claimed in claim 4 wherein the material of which the filter (14) is composed comprises two types of filter material, a first material (63) being operative to separate particulate materials and a second material (64) operative to deodorise.

Claim 6 (Original): A unit as claimed in claim 5 wherein the first cylindrical filter material (63) encountered by the air is a gel or oil coated filter medium operative or rated to filter particles down to about 0.1 microns.

Claim 7 (Currently Amended): A unit as claimed in claim 6 wherein the second filter material (64) comprises an activated carbon impregnated filter medium operative to deodorise the air.

Claim 8 (Currently Amended): A unit as claimed in claim 1 wherein the air discharged from the unit is directed upwardly at an angle of about 45° or less to the vertical.

Claim 9 (Currently Amended): A unit as claimed in claim 1 wherein the discharge (60) includes a discharge opening (73) having an area about equal to or greater than the area of the intake (17) of the centrifugal fan (12), whereby the velocity of the discharged air is not significantly greater or is lower than the velocity of the air entering the intake with the result that the discharge air stream does not have a significant drawing effect.

Claim 10 (Currently Amended): A unit as claimed in claim 1 wherein the discharge (60) includes a generally annular upwardly facing opening (73) provided in the body

(11), the flow deflecting means (62) provided by the body comprising a passage into which air expelled by the centrifugal fan enters, the passage having walls (70) bending in an upwards direction to deflect the air upwardly through the discharge opening.

Claim 11 (Original): A unit as claimed in claim 10 wherein the passage is defined by a section (25) of the body circumferentially surrounding the fan and provides throughout its circumference a smoothly curved surface (70) which commences at and extends radially out from the centrifugal fan (12) then curves smoothly upwardly to the discharge opening (73).

Claim 12 (Currently Amended): A unit as claimed in claim 1 wherein the body has a peripheral extension (75) projecting radially beyond the discharge (60) so as to increase the distance that air being discharged would need to flow in order to reach the intake (17) of the fan (12).

Claim 13 (Original): A unit as claimed in claim 12 wherein the peripheral extension (75) provides an available space where the light source (14) is located so as not to obstruct air flow into the intake (17).